

## Lithofacies and permeability of the deeper part aquifers in the Osaka Plain, central Japan

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In the Osaka Plain, deep groundwater is pumped up for natural hot spring bath facilities in high volume from the Miyakojima Formation (the Lower Pleistocene). The aquifers of the Miyakojima formation are divided into 3 zones (zone L, M, and U, in ascending order) with lithofacies. The hydraulic conductivity in the northern part in the Osaka Plain is higher than the southern part along with the horizontal change of the lithofacies. Detailed lithofacies data and highly accurate analysis of pumping test are very important to build 3-D groundwater flow model. This study, to request the value with high accuracy, the pumping test was analyzed again. And the lithofacies in each aquifer zone were analyzed in detail. As a result, when you request the transmissibility, the requested pumping test by the recovery method is nearer the theory value requested from the specific capacity than the requested pumping test by the Hantush-Jacob type curve method.

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